

N93-23155

Workshop 15

Pitfalls

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University of Arizona
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First National Space Grant Conference
Columbia, Maryland
January 16-19, 1990

Pitfalls

Abstract

Though potentially of great benefit to the nation, the experience of the workshop participants and their discussions with Sea Grant and Land Grant officials make it clear that the Space Grant program must avoid certain pitfalls of the past and present if it is to be successful. The most important of these are listed and briefly discussed herein.

Funding Levels

Unless continuing NASA funding can be assured, and increased to at least \$1 million annually by some means for each consortium, it may not be possible for them to mount effective programs. In most cases the grant money must be divided between no less than three institutions or other organizations, so that even at this level Space Grant will have difficulty in competing locally with better funded programs for faculty time, space, and administrative support.

Number of Grants

Since funding levels, and the relative significance of belonging to the group, will be strongly influenced by the total number of consortium grants awarded, too many may have been selected already. This may lead to excessive leveraging and overloading industry. Despite the importance of achieving broad national coverage to build a constituency, any increase in the present number may jeopardize the entire Space Grant program.

Matching Fund Requirements

Continued insistence on equal matching by member organizations will also make it difficult to compete for local resources with programs that require little if any matching. Additionally, in order to plan meaningful activities many of the consortium members have been forced to absorb administrative costs considerably in excess of this requirement, a practice which could severely weaken the Space Grant program.

Federal Political Relations

Because of the nature of grant funding, Space Grant may become a target for budget cuts in some future administration. If this occurs, broad support within the Congress will be essential, but carries with it the added hazard of restored funds being earmarked for special political purposes.

Federal Agency Relations

Because of its overall management by NASA, technical managers may view Space Grant as an indirect threat to their own budgets, resulting in internal reprogramming of allocated funds in times of stress. Combatting this by emphasizing relevance to science and engineering objectives, and by establishing formal peer-review processes, may not be possible because of the educational/outreach character of the program. Top NASA administrators may also oppose independent lobbying at the federal level for similar reasons.

State Political Relations

If Space Grant support cannot be entered as an independent line item in the budget, program objectives may be compromised by internal reallocation decisions of the member organizations. Attempting to obtain legislative backing for such action would probably be opposed by the administrative officials of the universities involved for both management and fiscal reasons.

Consortium Interrelationships

The geographic spread, uneven strength, and diverse programmatic character of the individual consortium will make it difficult to operate a unified program. Failure to establish a central governing board charged with the responsibility of promoting communications and establishing operating rules, regulations and standards may lead to a dilution of overall quality and dominance or withdrawal of the strongest consortium. Definition of performance measures is critical, but must avoid encouraging micromanagement.

Local Procedures

The intended character of Sea Grant and experiences of other federal grant programs suggest the following to be of special importance:

- * Reporting directly to the chief administrative officer of the organization, e.g., the president of the university.
- * Buffering against federal funding delays, e.g., reserve for program development; use of local funds.
- * Arranging for program presentations to joint legislative budget committees, i.e., synchronized with the budget cycle.
- * Minimizing administrative and equipment costs, i.e., emphasizing educational and infrastructure development expenditures.
- * Avoiding the pursuit of research objectives, e.g., science and engineering projects supported in other ways.
- * Stressing the interdisciplinary nature of the program, e.g., developing cross-college and departmental ties.
- * Limiting objectives initially, i.e., agreeing on the goals to be achieved within the time and funds available.
- * Emphasizing public relations and appropriate publicity, without overselling the program, e.g., high school and community college contracts; brochures and media coverage.

Failure to observe any of these could have an adverse effect on local program development.

National Space Grant College and Fellowship Program

*Program Directors

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CALIFORNIA SPACE GRANT CONSORTIUM

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* List revised 10/03/90

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CORNELL SPACE GRANT CONSORTIUM

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318 Space Sciences Building
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FLORIDA SPACE GRANT CONSORTIUM

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National Space Grant College and Fellowship Program

Designated Space Grant Colleges/Consortia

Institutions which qualify for designated Space Grant College status are indicated with asterisks.

ALABAMA SPACE GRANT CONSORTIUM

- * University of Alabama/Huntsville
- University of Alabama/Birmingham
- Alabama A&M University
- Auburn University
- University of Alabama

ARIZONA SPACE GRANT COLLEGE CONSORTIUM

- * University of Arizona
- Arizona State University
- Northern Arizona University

CALIFORNIA SPACE GRANT CONSORTIUM AND FELLOWSHIP PROGRAM

- * University of California/Berkeley
- * University of California/Los Angeles
- * University of California/San Diego

COLORADO SPACE GRANT CONSORTIUM

- * University of Colorado/Boulder
- Colorado State University
- University of Colorado/Colorado Springs
- Fort Lewis College
- Mesa State College
- University of Southern Colorado
- United States Space Foundation

CORNELL SPACE GRANT CONSORTIUM

- * Cornell University
- Clarkson University

FLORIDA SPACE GRANT CONSORTIUM

- University of Florida
- Florida A&M University
- Florida State University
- University of Miami

GEORGIA INSTITUTE OF TECHNOLOGY SPACE GRANT CONSORTIUM

- * Georgia Institute of Technology
- Clark Atlanta University
- Georgia State University
- Tuskegee University

UNIVERSITY OF HAWAII AT MANOA

AEROSPACE ILLINOIS SPACE GRANT CONSORTIUM

- * University of Chicago
- * University of Illinois/Urbana
- University of Illinois/Chicago
- Illinois Institute of Technology
- Illinois Space Institute
- Northwestern University

IOWA SPACE GRANT COLLEGE CONSORTIUM

- * University of Iowa
- Iowa State University
- University of Northern Iowa

THE JOHNS HOPKINS SPACE GRANT CONSORTIUM

- * The Johns Hopkins University
- Space Telescope Science Institute
- Morgan State University

* MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MICHIGAN SPACE GRANT COLLEGE PROGRAM

- * University of Michigan
- Michigan Technological University
- Saginaw Valley State University
- Wayne State University

NEW MEXICO SPACE GRANT CONSORTIUM

- * New Mexico State University
- Space Center

OHIO AEROSPACE INSTITUTE

- * Case Western Reserve University
- * Ohio State University
- Cleveland State University
- University of Akron
- University of Cincinnati
- University of Dayton
- Ohio University
- University of Toledo
- Wright State University

* PENNSYLVANIA STATE UNIVERSITY

ROCKY MOUNTAIN SPACE GRANT CONSORTIUM

- Utah State University
- University of Denver
- University of Utah

TENNESSEE VALLEY AEROSPACE CONSORTIUM

Vanderbilt University
University of Tennessee/Knoxville
Fisk University
Tennessee State University
University of Tennessee Space Institute

TEXAS SPACE GRANT CONSORTIUM

* Texas A&M University
* University of Houston/Clear Lake
* University of Texas/Austin
* University of Houston/Houston
Rice University
University of Texas/Dallas
UT Health Science Center, Houston
Baylor University
University of Houston Downtown
Lamar University
Prairie View A&M University
Southern Methodist University
University of Texas/Arlington
University of Texas/El Paso
University of Texas/San Antonio
UT Health Science Center, San Antonio
UT Medical Branch/Galveston
UT Southwestern Medical Center, Dallas
Texas A&I University
Texas A&M University/Galveston
Texas Christian University
Texas Southern University
Texas Technological University

VIRGINIA SPACE GRANT CONSORTIUM

* Old Dominion University
* Virginia Polytechnical Institute and State
University
University of Virginia
College of William and Mary
Hampton University
State Council of Higher Education
Center for Innovative Technology

* UNIVERSITY OF WASHINGTON

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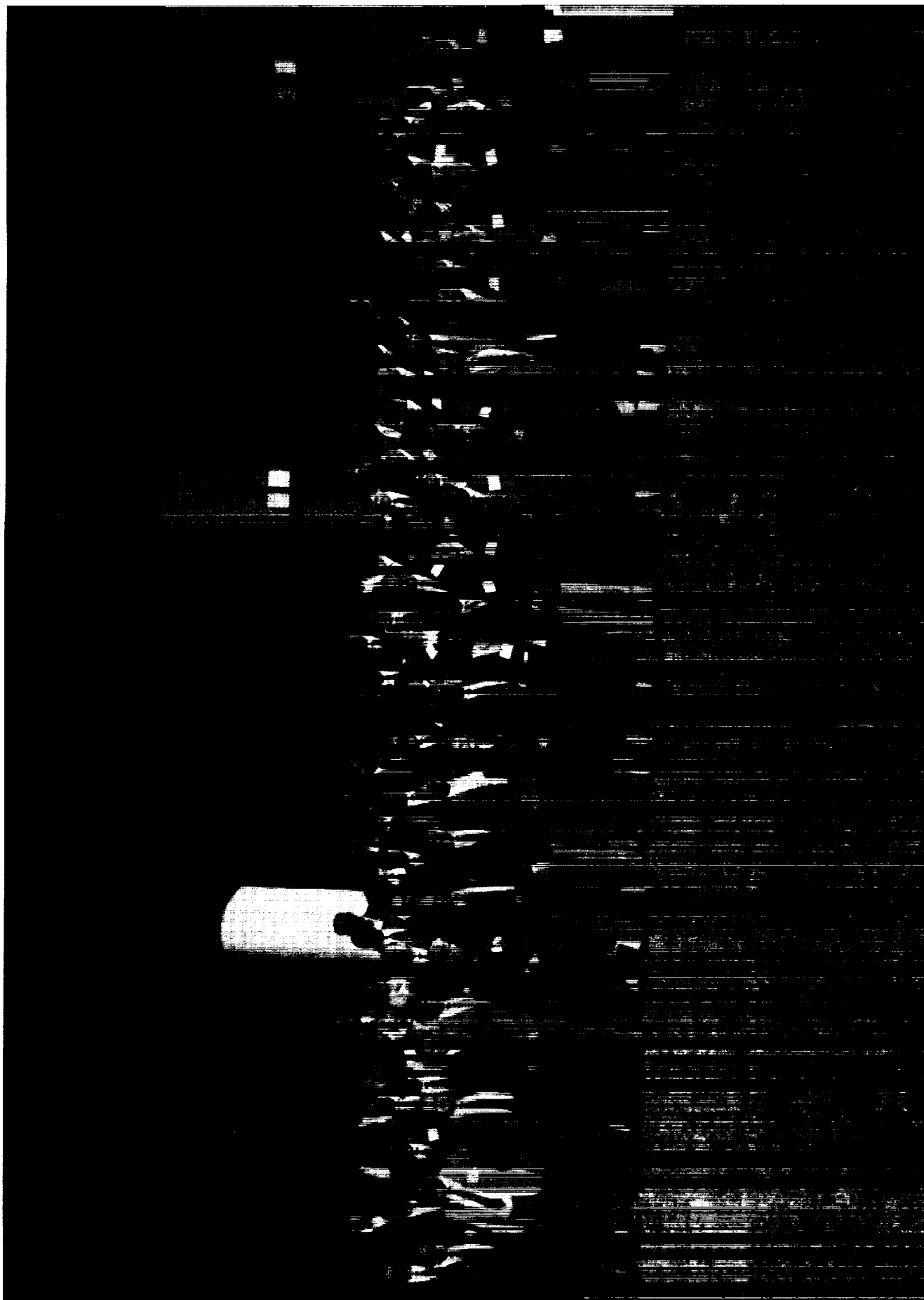
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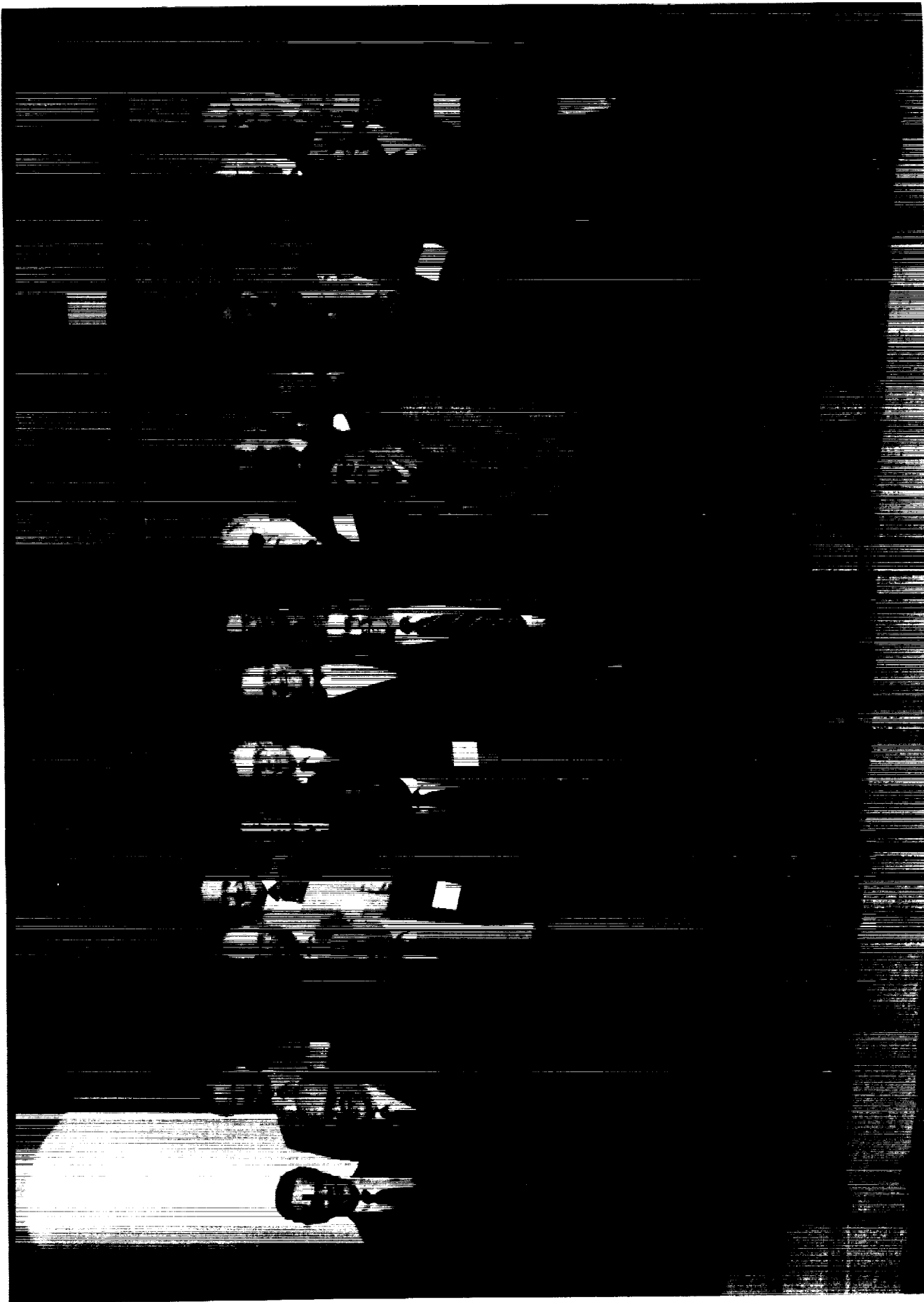
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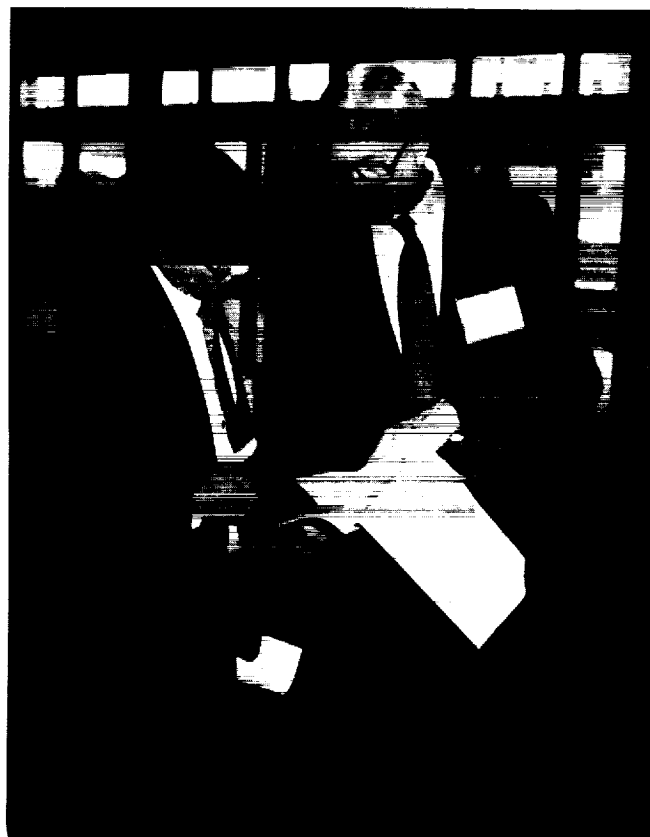
First National Space Grant Conference participants. NASA Administrator Admiral Richard H. Truly, front row, center.



Space Grant Program Directors or their designees. NASA Administrator Admiral Richard H. Truly, front row, center.



NASA Administrator Admiral Richard H. Truly addressing the First National Space Grant Conference.



Dr. Phillip J. Sakimoto, Assistant Program Director, The Johns Hopkins Space Grant Consortium and member of the local planning committee; and Dr. E. Julius Dasch, program Manager and Conference Chair, NASA Headquarters.



Members of the Virginia Space Grant Consortium: Dr. Michael W. Miller; Program Director Dr. Dennis W. Barnes; Dr. Demetrius Venable; and Dr. Suzanne M. Stuart.



Members of the Pennsylvania State University Space Grant College: Dr. Wes C. Hymer; Dr. Sylvia Stein; and Dr. Richard L. McCarl.



NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM

FIRST NATIONAL CONFERENCE

January 16-19, 1990

Kossiakoff Center

The Johns Hopkins University
Applied Physics Laboratory

Columbia, Maryland

PROGRAM

Tuesday, January 16

7:00 - 9:00 p.m. Welcoming Reception (Cash Bar) and Registration
Columbia Hilton Hotel, Columbia, Maryland

Wednesday, January 17

8:00 - 8:30 a.m. Late Registration/Continental Breakfast
Kossiakoff Center North Dining Room

8:30 - 8:45 a.m. Welcome and Introductions
Kossiakoff Center Auditorium

—**Dr. E. Julius Dasch**
Conference Chair
Space Grant Program Manager
University Programs Branch
Office of External Relations
NASA Headquarters

—**Dr. James E. Colvard**
Associate Director
Applied Physics Laboratory

8:45 - 9:00 a.m. *NASA's External Community*

—**Mr. Kenneth S. Pedersen**
Associate Administrator
Office of External Relations
NASA Headquarters

9:00 - 9:30 a.m.	<i>National Setting for the Space Grant Program</i> Keynote Speaker —Admiral Richard H. Truly NASA Administrator
9:30 -10:15 a.m.	Break Group Photograph Kossiakoff Center North Dining Room
10:15 -11:15 a.m.	<i>Second Golden Age of Exploration: Flight Programs to 2010</i> —Dr. Geoffrey A. Briggs Director Solar System Exploration Division Office of Space Science and Applications NASA Headquarters Kossiakoff Center Auditorium
11:15 -12:15 p.m.	Panel Discussion: <i>Space Grant Program Expectations</i> —Chair: Ms. Elaine T. Schwartz Chief University Programs Branch Office of External Relations NASA Headquarters —Panel: NASA Center University Affairs Officers Kossiakoff Center Auditorium
12:15 - 3:00 p.m.	Lunch and NASA Center Discussions Lunch Kossiakoff Center South Dining Room Free Time for Discussions at NASA Center Tables Kossiakoff Center North Dining Room <div style="text-align: center;"> *2:00-3:00 p.m. — <i>Space Grant Program Directors Meeting</i> — concurrent with break* Kossiakoff Center classroom </div>
3:00 - 4:00 p.m.	<i>The Space Grant Program: Structuring Phase II</i> —Chair: Mr. Melvin J. Hartmann Director of University Programs NASA Lewis Research Center Kossiakoff Center Auditorium

4:00 - 5:00 p.m.

Tour of Applied Physics Laboratory

—**Dr. Vincent L. Pisacane**

Head

Space Department

Applied Physics Laboratory

Tour begins in Kossiakoff Center Auditorium

5:00 p.m.

Bus leaves Kossiakoff Center for hotel

6:00 p.m.

Bus leaves hotel for reception

7:00 - 9:30 p.m.

Reception (Open Bar)

Maryland Science Center

Baltimore Inner Harbor

9 :45 p.m.

Bus leaves for hotel

Thursday, January 18

8:30 - 9:00 a.m.	Charge and Guidance to Workshops — Dr. E. Julius Dasch Kossiakoff Center Auditorium
9:00 - 10:30 a.m.	Workshop Sessions <u>*First Group of Topics*</u> Kossiakoff Center classrooms Coffee and tea available in North Dining Room
10:30 - 12:00 p.m.	Workshop Reports to Conference Kossiakoff Center Auditorium
12:00 - 1:00 p.m.	Lunch Kossiakoff Center South Dining Room
1:00 - 2:30 p.m.	Workshop Sessions <u>*Second Group of Topics*</u> Kossiakoff Center Classrooms Coffee and tea available in North Dining Room
2:30 - 4:00 p.m.	Workshop Reports to Conference Kossiakoff Center Auditorium
4:00 p.m.	Bus leaves Kossiakoff Center for hotel
5:00 p.m.	Bus leaves hotel for tour
6:00 - 7:00 p.m.	Welcome and Tour The Space Telescope Science Institute — Dr. Riccardo Giacconi Director Space Telescope Science Institute — Dr. Eric Chaisson Director of Educational Programs Space Telescope Science Institute
7:00 p.m.	Bus leaves Institute for banquet Morgan State University McKeldin Center
7:30 - 8:00 p.m.	Cocktail Party (Open Bar)

8:00 - 9:00 p.m.	Dinner
9:00 - 9:15 p.m.	Welcoming Remarks — Dr. Earl S. Richardson President Morgan State University — Dr. Robert W. Brown Director Educational Affairs Division NASA Headquarters
9:15 - 10:15 p.m.	<i>Manned Exploration of the Moon and Mars</i> — Dr. Franklin D. Martin Assistant Administrator Office of Exploration NASA Headquarters
10:30 p.m.	Bus leaves for hotel

Friday, January 19

8:30 - 9:00 a.m.	Baggage checking available in Kossiakoff Center classroom
9:00- 10:30 a.m.	Workshop Sessions <u>*Third Group of Topics*</u> Kossiakoff Center classrooms Coffee and tea available in North Dining Room
10:30 - 12:00 p.m.	Workshop Reports to Conference Kossiakoff Center Auditorium
12:00 - 1:00 p.m.	Lunch Closing Remarks — Dr. E. Julius Dasch Kossiakoff Center South Dining Room
1:00 p.m.	Bus leaves Kossiakoff Center for NASA tour
1:30- 2:30 p.m.	Tour of NASA/Goddard Space Flight Center — Dr. Gerald Soffen University Affairs Officer NASA Goddard Space Flight Center *1:30 - 3:00 p.m. — <i>Role of NASA Centers in the Space Grant Program — Center University Affairs Officers and Headquarters personnel - concurrent with tour*</i> Kossiakoff Center classroom
2:30 p.m.	Bus leaves NASA Goddard Space Flight Center for Kossiakoff Center
3:00 p.m.	Bus leaves Kossiakoff Center for airport

FIRST NATIONAL SPACE GRANT CONFERENCE

	Name		Home Institution	Space Grant Affiliation or Title
1	ADAMS	Clara I.	Morgan State University	Vice President, Academic Affairs
2	ANDERSON	Eddie	NASA Headquarters	Chief, Elem & Sec Programs
3	ANIKIS	Anne	JHU Applied Physics Laboratory	MESA Program Coordinator
4	ASHER	Muriel	National Inst of Mental Health	
5	ASHKENAS	Harry	Jet Propulsion Laboratory	Dir, University Affairs Office
6	AYERS	Anne L.	NASA Headquarters	Elem & Secondary Programs
7	BACON	Pamela M.	NASA Headquarters	Elem & Secondary Programs
8	BAKER	Doran	Utah State University	Rocky Mountain Consortium
9	BARNES	Dennis W.	University of Virginia	Virginia Consortium
10	BERES	Kathleen	Westinghouse Electric Corp	The Johns Hopkins Consortium
11	BILBROUGH	Larry B.	NASA Headquarters	Elem & Secondary Programs
12	BLAKEY	Kristina	NASA Headquarters	University Programs
13	BOETTINGER-LANG	Ellie	Space Telescope Science Inst	Conference Assistant
14	BOETTINGER-LANG	John	Space Telescope Science Inst	Guest
15	BOSTROM	Carl O.	JHU, Applied Physics Lab	Director
16	BREMMER	Dale A.	NASA Headquarters	Coll Lecturers, Aeronaut & Sp Sci
17	BRIGGS	Geoffrey	NASA Headquarters	Dir, Solar System Expl Div
18	BROWN	Myrtle	NASA Headquarters	Guest
19	BROWN	Robert W.	NASA	Dir, Educational Affairs Division
20	BUSBY	Michael	Tennessee State University	Tennessee Valley Aerospace Cons
21	BYTHROW	Peter F.	JHU Applied Physics Lab	Tour Host
22	CAMP	Warren L.	Kennedy Space Center (NASA)	KSC Focal Point
23	CHAISSON	Eric	Space Telescope Science Inst.	The Johns Hopkins Consortium
24	CHANDLER	Trevor L.	University of Washington	University of Washington
25	CHEN	Ching Jen	University of Iowa	Iowa S.G. College Consortium
26	CLARK	Louis	NASA HQ	Sr. Scientist
27	COHON	Jared	The Johns Hopkins University	Vice Provost for Research
28	COHON	Maureen	The Johns Hopkins University	Guest
29	COLVARD	James E.	JHU Applied Physics Laboratory	Associate Director
30	COULTER	Gary	Colorado State University	Flight Program Mgr
31	CRISWELL	David R.	Univ of California, San Diego	California Consortium
32	DASCH	E. Julius	NASA Headquarters	Program Manager
33	DASCH	Patricia	NASA Headquarters	Conference Assistant
34	DELOACH	Sarah	NASA Headquarters	University Programs

FIRST NATIONAL SPACE GRANT CONFERENCE

	Name		Home Institution	Space Grant Affiliation or Title
35	DELOATCH	Eugene	Morgan State University	Dean, School of Engineering
36	DURDEN	William	The Johns Hopkins University	Ctr for Gifted & Talented Youth
37	EAST	Thomas D.	University of Utah	Rocky Mountain Consortium
38	EISENBERG	Martin A.	University of Florida	Florida Consortium
39	EISLEY	Joe G.	University of Michigan	Michigan S.G. College Program
40	EISLEY	Paul	Guest of Joe Eisley	
41	ENGLAND	Anthony	The University of Michigan	Michigan S.G. College Program
42	FABER	Jack A.	University of Colorado	Colorado Consortium
43	FOGG	Beverly	Morgan State University	Conference Assistant
44	FOGG	Percy	Morgan State University	Guest
45	FOSHA	Charles E.	U of Colorado, Colorado Springs	Colorado Consortium
46	FRAIN	William E.	JHU Applied Physics Lab	Tour Host
47	FREEMAN	Michael	The University of Alabama	Alabama Consortium
48	GIACCONI	Riccardo	Space Telescope Science	Director
49	GIERASCH	Peter	Cornell University	Cornell College Consortium
50	GOLDEN	Howard S.	NASA Headquarters	Chief, Educ Publ & Special Serv
51	GOLDSTEIN	Stanley H.	Johnson Space Center	Director, University Programs
52	GRAGG	Francis	Martin Marietta	Massachusetts Inst Technology
53	GRANT	Davld G.	Applied Physics Lab	Tour Host
54	HAMMOND	Ernest	Morgan State University	The Johns Hopkins Consortium
55	HANLE	Paul	Maryland Academy of Sciences	Director
56	HANSEN	Elaine B.	University of Colorado	Colorado Consortium
57	HARRIS	Jessie J.	NASA Headquarters	Executive Officer
58	HARTMANN	Melvin J.	NASA Lewis	Director, University Programs
59	HASTINGS	Barbara	NASA-Ames Research Center	University Affairs Officer
60	HASTINGS	Daniel	MIT	Massachusetts Inst of Technology
61	HAWKINS	Edwin	Mesa State College	Colorado Consortium
62	HAYDON	William G.	NASA Headquarters	Photographer
63	HENRY	J. Patrick	University of Hawaii at Manoa	University of Hawaii at Manoa
64	HENRY	Richard C.	The Johns Hopkins University	The Johns Hopkins Consortium
65	HOLLAND	Dolores A.	NASA Headquarters	Off. of Space Sci & Applications
66	HOOKER	Lisa	The Johns Hopkins University	Senior Media Relations
67	HOPP	Michael A.	Martin Marietta Corporation	The Johns Hopkins Consortium
68	HORAN	Sheila	New Mexico State University	Guest

FIRST NATIONAL SPACE GRANT CONFERENCE

	Name		Home Institution	Space Grant Affiliation or Title
69	HORAN	Stephen	New Mexico State University	New Mexico Consortium
70	HOWARD	Edward G.	University of Denver	Rocky Mountain Consortium
71	HYDER	A. K.	Auburn University	Alabama Space Grant
72	HYMER	Wes	Penn State University	Director, National Space Grant
73	ISABELL	Doug	Washington Technology	Staff Writer
74	JARRETT	Ronald E.	Morgan State University	Director of Corporate Relations
75	JETER	Wanda	Georgia Institute of Technology	Georgia Tech Consortium
76	JOHNSTON	Gordon I.	NASA Headquarters	Program Mgr, Space Tech. Univ.
77	KEFFER	Lynne	NASA Headquarters	Program Assistant
78	KILGUS	Charles C.	JHU Applied Physics Lab	Tour Host
79	KNAPPENBERGER	H. Allan	Wayne State University	Michigan S.G. College Program
80	KREISEL	Elmer	Towson State University	Department of Physics
81	KRUPSAW	Janet	JHU Space Grant Consortium	Conference Administrator
82	KULLGREN	Thomas E.	Saginaw Valley State University	Michigan S.G. College Program
83	LAWSON	Denise	Jet Propulsion Laboratory	Prg Mgr Spacecft Sys, NASA HQ
84	LAZAR	James	Argonne National Laboratory	Aerospace Illinois Consortium
85	LORETAN	Phil	Tuskegee University	Georgia Tech Consortium
86	MAHON	Rita	The Johns Hopkins University	Guest (R.C. Henry spouse)
87	MARTIN	Franklin D.	NASA Headquarters	Office of Exploration
88	MASSENBERG	Samuel E.	NASA/Langley Research Center	University Affairs Officer
89	MCCALLUM	Debbie	NASA/GSFC	Photographer
90	MCCARL	Richard L.	The Pennsylvania State Univ.	The Pennsylvania State University
91	MCCARTY	Thomas A.	Applied Physics Lab	Tour Host
92	MC GEE	A. Sherri	NASA Headquarters	University Programs
93	MENCHAN	Dillard	NASA/Goddard Space Flight	ECP
94	MEREDITH	Julia D.	NASA Headquarters	Legislative Affairs
95	MILLER	Michael W.	Center for Innovative Technology	Virginla Consortium
96	MILLER	Sam	NASA Ames Research Center	Grad & Summer Faculty Coord
97	MONTEGANI	Francis J.	NASA Lewis Research Center	Chief, Office of University Affairs
98	MOOS	Doris	The Johns Hopkins University	Guest
99	MOOS	Warren	The Johns Hopkins University	Dir, Center for Astrophys. Sci.
100	MORGAN	Steven H.	Fisk University	Tennessee Valley Aerospace Cons
101	MURCRAY	David G.	University of Denver	Rocky Mountain Consortium
102	NAGIB	Hassan	Illinois Institute of Technology	Aerospace Illinois Consortium

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Name			Home Institution	Space Grant Affiliation or Title
103	NELSON	George D.	University of Washington	University of Washington
104	NEWTON	Jeffrey	The Johns Hopkins University	Corporate & Foundation Relations
105	NICHOLS	Steven P.	University of Texas at Austin	Texas Consortium
106	NICKS	Oran W.	Texas, A & M University	Texas Consortium
107	NOVAK	Rachel	Freelance Writer	
108	OWENS	Frank C.	NASA	Dep Dir, Educational Affairs Div.
109	PARKS	George K.	University of Washington	University of Washington
110	PEDERSON	Kenneth	NASA Headquarters	Assoc Adm., External Relations
111	PERRY	Wayne D.	Pairie View A & M	Texas Consortium
112	PETERS	David. A.	Georgia Institute of Technology	Georgia Tech Consortium
113	PETERSON	George D.	Morgan State University	The Johns Hopkins Space Grant
114	PISACANE	Lois	Applied Physics Laboratory	Guest
115	PISACANE	Vincent L.	JHU/Applied Physics Lab	The Johns Hopkins Consortium
116	PRATHER	Edward	Univ. of Cincinnati	OAI
117	PRICE	Donald R.	University of Florida	Florida Consortium
118	PROCTOR	Frank	JHU Applied Physics Laboratory	Public Relations
119	RADER	Pat	NASA/Goddard Space Flight	Conference Assistant
120	RAVERA	Virginia	NASA Headquarters	University Programs
121	RAWIE	Ineke	Guest of J. Easley	
122	REDD	Frank J.	Utah State University	Rocky Mountain Consortium
123	RHUE	Reginald	JHU Applied Physics Lab	Tour Host
124	RICHARDSON	Earl S.	Morgan State University	President
125	ROTH	Mary	Cornell University	Cornell College Consortium
126	SADEH	Willy Z.	Colorado State University	Colorado Consortium
127	SAIGO	Roy H.	University of Iowa	Iowa S.G. College Consortium
128	SAKIMOTO	Philip J.	The Johns Hopkins University	The Johns Hopkins Consortium
129	SAKIMOTO	Susan	The Johns Hopkins University	Conference Assistant
130	SALKIND	Michael	Ohio Aerospace Institute	Ohio Aerospace Institute
131	SANDERS	Wallace	Iowa State University	Iowa S.G. College Consortium
132	SASSER	Lisa	MIT	Massachusetts Inst of Technology
133	SCHMIDT	David K.	Arizona State University	Arizona College Consortium
134	SCHWARTZ	Elaine	NASA Headquarters	Chief, Univ. Programs Branch
135	SHAHROKHI	F.	The Univ. of Tenn. Space Inst.	Tennessee Valley Aerospace Cons
136	SHEPPARD	Sallie	Texas A & M University	Texas Consortium

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Name			Home Institution	Space Grant Affiliation or Title
137	SINDELAR	Theresa G.	NASA Headquarters	Media Services Division
138	SIX	Frank	NASA/MSFC	University Affairs Officer
139	SOFFEN	Gerald A.	Goddard Space Flight Center	University Affairs Officer
140	SOFFEN	Kazuko	NASA/GSFC	Guest
141	SOLOMON	Wayne C.	U of Illinois, Urbana-Champaign	Aerospace Illinois Consortium
142	STEIN	Sylvia	Penn State University	Exec Dir, Natl Space Grant Prog.
143	STOUFFER	Donald	University Cincinnati	Ohio Aerospace Institute
144	STRAUSS	Alvin M.	Vanderbilt University	Tennessee Valley Aerospace Cons
145	STREETER	Bill	Space Center	New Mexico State University
146	STUART	Suzanne	Peninsula Graduate Eng. Ctr.	Virginia Consortium
147	TAPLEY	Byron D.	University of Texas at Austin	Texas Space Grant Consortium
148	THOMPSON	Linda	JHU Applied Physics Lab	Conference Assistant
149	THORNTON	J. Ronald	University of Florida	Florida Consortium
150	TILTON, III	Lee	NASA/Stennis Space Center	Dir, Science & Technology Lab
151	TREMER	Walt	NASA	Space Ambassador
152	TRIFFET	Terry	University of Arizona	Arizona Consortium
153	TRULY	Adm. R.H.	NASA Headquarters	Administrator
154	VALENTINE	Daniel T.	Clarkson University	Cornell Consortium
155	VANDELINDE	David D.	The Johns Hopkins University	Dean of Engineering
156	VENABLE	Demetrius	Hampton University	Virginia Consortium
157	WARREN	Lewin S.	NASA Headquarters	Dep Asst Admin, EOP
158	WEBB	David	University Central Florida	Florida Space Grant
159	WEHINGER	Peter A.	Arizona State University	Arizona Consortium
160	WILSON	Harold J.	Univ of Alabama in Huntsville	Alabama Consortium
161	YANG	Robert L.	NASA Langley Research Center	